

In The Claims:

Claims 1-26. (canceled)

Claim 27. (previously amended) A medical balloon having:
a proximal waist portion have a proximal waist wall thickness;
a proximal cone portion having a proximal cone wall thickness;
a body portion having a body wall thickness;
a distal cone portion having a distal cone wall thickness; and
a distal waist portion having a distal waist wall thickness;
wherein the wall thickness of at least one balloon segment selected from the group consisting of the proximal waist, the proximal cone, the distal cone and the distal waist segments is less than the body wall thickness, the at least one segment having a chemically etched or ground surface.

Claim 28. (previously added) The medical balloon of claim 27 wherein the wall thickness of both the proximal cone portion and the distal cone portion are less than the body wall thickness.

Claim 29. (previously added) The medical balloon of claim 27 wherein the wall thickness of the distal cone is less than the wall thickness of the proximal cone.

Claim 30. (currently amended) A medical balloon having a chemically etched or ground surface portion, which when inflated to a desired pressure has a constant wall thickness over substantially the entire length of the balloon.

Claims 31-32 (canceled)

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Claim 33. (previously amended) A medical balloon comprising:
a body portion having a body wall thickness, a proximal cone portion having a proximal cone wall thickness, a proximal waist portion having a proximal waist wall thickness, a distal cone portion having a distal cone wall thickness, and a distal waist portion having a distal waist wall thickness, at least a portion of the balloon having a ground or chemically etched surface,
wherein at least one of the proximal waist wall thickness and the distal waist wall thickness is no thicker than at least one of the proximal cone wall thickness, the distal cone wall thickness, and the body wall thickness.

Claim 34. (previously added) The medical balloon of claim 33 wherein the proximal waist wall thickness is no thicker than the proximal cone wall thickness.

Claim 35. (previously added) The medical balloon of claim 33 wherein the proximal waist wall thickness is no thicker than the body wall thickness.

Claim 36. (previously added) The medical balloon of claim 33 wherein the distal waist wall thickness is no thicker than the distal cone wall thickness.

Claim 37. (previously added) The medical balloon of claim 33 wherein the distal waist wall thickness is no thicker than the body wall thickness.

Claim 38. (previously added) The medical balloon of claim 33 wherein the proximal waist wall thickness is no thicker than the distal cone wall thickness.

Claim 39. (previously added) The medical balloon of claim 33 wherein the proximal waist wall thickness and the distal waist wall thickness are each no thicker than the body wall thickness.

Claim 40. (canceled)

Claim 41. (previously amended) The medical balloon of claim 33 wherein at least one balloon portion selected from the group consisting of the body portion, the proximal cone portion, the distal cone portion, the proximal waist portion, the distal waist portion and any combination thereof, has a chemically etched surface.

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Claim 42. (previously amended) A medical balloon comprising:
a body portion having a body wall thickness;
a proximal cone portion, the proximal cone portion having a proximal cone wall thickness, the proximal cone wall thickness being no thicker than the body wall thickness;
a proximal waist portion, the proximal waist portion having a proximal waist wall thickness, the proximal waist wall thickness being no thicker than the proximal cone wall thickness;
a distal cone portion having a distal cone wall thickness, the distal cone wall thickness being no thicker than the body wall thickness; and
a distal waist portion having a distal waist wall thickness, the distal waist wall thickness being no thicker than the proximal cone wall thickness,
at least a portion of the balloon having a ground or chemically etched surface.

Claim 43. (previously amended) The medical balloon of claim 42 wherein the wall thickness of at least one balloon portion selected from the group consisting of the proximal cone portion, the distal cone portion, the proximal waist portion, the distal waist portion, and any combination thereof is less than the body wall thickness.

Claim 44. (canceled)

Claim 45. (previously amended) The medical balloon of claim 42 wherein at least one balloon portion selected from the group consisting of the body portion, the proximal cone portion, the distal cone portion, the proximal waist portion, the distal waist portion and any combination thereof, has a chemically etched surface.

Claim 46. (previously added) The medical balloon of claim 42 wherein the wall thickness of the body portion, the proximal cone portion, the distal cone portion, the proximal waist portion, and the distal waist portion, are substantially equal.